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PYGMY FRINGE-TREE, CHIONANTHUS PYGMAEUS, ENDANGERED BY LOSS OF HABITAT

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Two species of Chionanthus are native to the southeastern United States. The more common of the two, graybeard or fringe-tree, C. virginicus L., grows in hammocks and woods from Pennsylvania south to Florida and west to Texas. This species is a small flowering tree and is often cultivated for its fringe-like white flowers. The other species, C. pygmaeus Small (2) or pygmy fringe-tree (Fig. 1), occurs naturally only in the sandhill scrub at the lower end of the Central Florida ridge. It grows normally as a shrub and is adapted to periodic burning. It has ornamental possibilities but is rarely used. Flowers are white, similar to those of C. virginicus but smaller.

Fig. 1. Chionanthus pygmaeus in flower
(DPI Photo #702902-9)

DESCRIPTION: Chionanthus pygmaeus: Shrub with underground stems (2), upright stems often arising from branches buried by blowing sands (3), usually 2-4 dm tall, seldom reaching 1 m, but with the absence of fire may occasionally reach 2 m or more; leaves opposite, deciduous, simple, elliptic, entire, leathery, 3-9 cm long, short petioled; flowers in spring in panicles from leaf axils; calyx lobes ovate or orbicular-ovate, about 1 mm long, obtuse or minutely pointed; corolla lobes 4, white, linear, about 1 cm long; anthers ellipsoid, less than 2 mm long, abruptly blunt tipped or acute but not prolonged; drupe oval, 2-2.5 cm long, purple-black, stone ellipsoid, constricted at base, 1.5-2 cm long (1,2,3).

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DISCUSSION: Chionanthus pygmaeus differs from C. virginicus in habitat, growth habit, leaf size and texture, flower size, and fruit size. C. virginicus, in contrast to the description above for C. pygmaeus, has leaves thinner, up to 20 cm long and 12 cm wide, corolla lobes 1.5-3 cm long, and fruit 1-1.5 cm long. There was considerable controversy at one time about whether C. pygmaeus should be considered a distinct species from C. virginicus. Most modern authors now accept C. pygmaeus as a distinct species based on the above differences and other factors (1,3).

Chionanthus pygmaeus occurs only in isolated locations and is limited in distribution to the excessively drained and leached white sand ridges and scrub vegetation of the southern end of the Central Florida ridge in Polk and Highlands Counties. This same well drained habitat is also highly desireable for various types of development. Much of this area is being converted to citrus groves, commercial development, or housing. For example, the area where the photograph (Fig. 1) was taken has since been bulldozed, and this population of C. pygmaeus has been lost. This location is near the southern extreme of the plant's distribution and beyond the range quoted by Ward (3). This site is represented in the Division of Plant Industry Herbarium by the specimen L-1905. Continued land development in that area is seriously depleting the populations of pygmy fringe-tree and other endemic species in this scrub habitat.

Chionanthus pygmaeus is currently listed as an endangered plant in Florida Statutes (Section 581.185). This prohibits collection, transport, or sale without permission and a permit. At the present time, however, there is no legal way to prevent a landowner from bulldozing or otherwise destroying any plants growing on his property. As long as the plants are not being transported or sold, the state has no control over the matter.

Land acquisition with habitat preservation appears to be the only way to prevent the extinction of this and other sand scrub endemics within the forseeable future. Continued uncontrolled development will soon destroy the few remaining sites where C. pygmaeus grows. Ward (3) states that it now "...grows only on a few-score Florida acres, and will be extinct once these are converted to patios and parkways."

LITERATURE CITED:

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